

**ABSTRACT**

Determination and processing for fractional-N programming values. The present invention is operable to receive a clock signal (CLK) and to transform that CLK into a new CLK, when necessary, for use by various circuitries within a system. The present invention is operable to generate two different CLKs for use by a radio frequency (RF) circuitry and a baseband processing circuitry in certain embodiments. The present invention employs a measurement circuitry and to characterize a first CLK and uses a fractional-N synthesizer to perform any necessary processing to generate the one or more CLKs to the other CLKs within the system. The first CLK may be received from an external source or it may be generated internally; in either case, the present invention is able to modify the CLK into another CLK for use by other circuitries within the system or for use by another external device.